including the State Government of Kerala. However, all the States have been provided funds for taking Capacity Building initiatives during 2004-05 & 2005-06 under the provision Additional Central Assistance to States for National e-Governance Plan. Government of Kerala has been provided funds amounting to Rs. 130 lakhs during this period.

WRITTEN ANSWERS TO UNSTARRED QUESTIONS

Irradiation Technology for Food Preservation

2104. SHRI BALAVANT *ALIAS* BALAPTE:
SHRI VINAY KATIYAR:

Will the PRIME MINISTER be pleased to state:

(a) whether Government have formulated any strategy for use of irradiation technology for food preservation;

(b) if so, the details thereof;

(c) whether Government have conducted any research to ascertain the utility to be derived from irradiation in the field of food preservation;

(d) if so, the results thereof; and

(e) the steps taken to augment the use of this facility in the country.

THE MINISTER OF STATE IN THE PRIME MINISTER'S OFFICE (SHRI PRITHVIRAJ CHAVAN): (a) Yes, Sir.

(b) The Department of Atomic Energy has carried out research and development on radiation processing of food and agricultural commodities for the past 50 years. In 1991, the Atomic Energy (Control of Irradiation of Food) Rules were drafted to enable radiation preservation of food and were subsequently amended in 1996. In 1994, The Ministry of Health & Family Welfare approved radiation processing of Onion, Potato and Spices under the Prevention of Food Adulteration Act (PFA) 1954, Rules. The PFA Act Rules were subsequently amended in 1998 and 2001 in include more commodities. The list of commodities approved under these

Rules is given in the Statement (*See* below). The Department of Atomic Energy has set up two units for demonstration of the Technology. A 30-Ton Per Day capacity unit was commissioned at Vashi, Navi Mumbai, for Hygienisation of spices and other dry ingredients, that require relatively high doses of radiation. Another a 10-ton per hour capacity plant for controlling sprouting in stored onion and potato and disinfestations of agricultural commodities that require relatively low does was set up at Lasalgaon, District Nashik, The Plant became operational in 2003.

(c) Yes, Sir.

(d) Initially, the R & D work was related to understanding the effect of radiation on the various food and agricultural commodities later, studies were focused on development of preservation protocols for agricultural commodities like Onion, Potato, Fruits, Vegetables, Cereals, Pulses, Meat and Meat Product and Sea-foods. Based on these studies more than 20 commodities (Table 1) have been approved for radiation processing under the PFA Act Rules. Recently, Research and Development on minimally processed fruits and vegetables, ready-to-cook and ready-to-eat food products is being pursued. Large-scale studies involving Government agencies, private enterpreneurs and Non-Government Organisations (NGOs) have been carried out with commodities like wheat, rice, onion, potato and spices to prove the utility of the process. The Department has also approached the Ministry of Health & Family Welfare for providing generic approval to fruits, vegetables, cereals and pulses and their products for the large-scale use of this technology.

(e) The Department of Atomic Energy is providing the requisite know-how and expertise for setting up Radiation Processing Plants in the country. More than a dozen Memorandum of Understanding (MoU) have been signed between Board of Radiation and Isotope Technology (BRIT) and private entrepreneurs for setting up Raidation Processing Plants. Under the MOU, BRIT undertakes to provide the radiation source COLBALT-60 and also the required engineering design and details. The Department also carries out and also participates in various programs conducted by other bodies, aimed at promoting entrepreneur development and public awareness about the technology.

Statement

Items of food permitted for irradiation under Indian Prevention of Food Adulteration Act (PFA) Rules

Sl. No.	Name of food	Dose of irradiation (kGy)		Purpose
		Min.	Max.	
1.	Onion	0.03	0.09	Sprout inhibition
2.	Potato	0.06	0.15	Sprout inhibition
3.	Shallots (small onion) garlic, ginger	0.03	0.15	Sprout inhibition
4.	Rice	0.25	1.0	Insect disinfestation
5.	Semolina (Sooji or Rawa), Wheat atta and Maida	0.25	1.0	Insect disinfestation
6.	Pulses	0.25	1.0	Insect disinfestation
7.	Dried sea-food	0.25	0.75	Insect disinfestation
8.	Raisins, figs and dried dates	0.25	0.75	Insect disinfestation
9.	Mango	0.25		Shelf-life extension and quarantine treatment
10.	Meat and meat products including chicken	2.5	4.0	Shelf-life extension and pathogan control
11.	Fresh sea-food	1.0	3.0	Shelf-life extension
12.	Frozen sea-food	4.0	6.0	Microbial pathogen control
13.	Spices	6.0	14.0	Microbial decontamination

Setting up of New Nuclear Plants in Andhra Pradesh

2105. SHRIMATI N.P. DURGA: Will the PRIME MINISTER be pleased to state:

(a) whether it is a fact that the Site Selection Committee appointed